nucleic acid sequence encodes a product of therapeutic interest for the treatment of diseases of the nervous system.

2. (Amended) Recombinant baculovirus comprising a heterologous nucleic acid sequence operatively associated with a promoter sequence, wherein said heterologous nucleic acid sequence encodes a product of therapeutic interest, and is capable of infecting and directing the expression of said therapeutic product in cells of the nervous system of vertebrates.

3. (Amended) Baculovirus according to claim 1 wherein the heterologous nucleic acid sequence comprises an antisense sequence or a gene.

4. (Amended) Baculovirus according to claim 1, wherein the heterologous nucleic acid sequence is a gene that encodes a compound selected from the group consisting of a hormone, a lymphokine, a growth factor, an enzyme for synthesizing a neurotransmitter, a trophic factor, a protein involved in the metabolism of an amino acid, a protein involved in the metabolism of a lipid, and a protein involved in the metabolism of a carbohydrate.

5. (Amended) Baculovirus according to claim 4, wherein trophic factor is selected from the group consisting of a neutrophin, a member of the CNTF family, a member of the IGF family, and a member of the FGF family.

6. (Amended) Baculovirus according to claim 4, wherein the heterologous nucleic acid sequence is a gene that encodes β-glucuronidase.

7. (Amended) Recombinant baculovirus according to claim 1, wherein said recombinant baculovirus expresses an envelope protein that is foreign to a baculovirus.

8. (Amended) Baculovirus according to claim 7, wherein the envelope protein comprises the glycoprotein of the rabies virus or the glycoprotein of VSV (Vesicular Stomatitis Virus).

10. (Amended) Baculovirus according to claim 1, wherein [9, characterized in that] the promoter sequence is selected from the group consisting of the Neuron Specific Enolase (NSE) promoter sequence, the Neurofilament (NF) promoter sequence, the Tyrosine Hydroxylase (TH) promoter sequence, the Dopamine Transporter (DAT) promoter sequence, the Choline Acetyl Transferase (ChA) promoter sequence, the Dopamine β-Hydroxylase (DBH) promoter sequence, the Tryptophan Hydroxylase (TPH) promoter sequence, the Glutamic Acid Dehydrogenase (GAD) promoter sequence, and the Glial Fibrillary Acidic Protein (GFAP) promoter sequence.

11. (Amended) Recombinant baculovirus according to claim 1, further comprising a signal sequence to induce secretion of specific compartmentalization of the therapeutic product.

17. (Amended) A population of cells of the nervous system, which is infected with the recombinant baculovirus of claim 1.

18. (Amended) An implant comprising human cells infected with a recombinant baculovirus of claim 1.

19. (Amended) A pharmaceutical composition comprising a recombinant baculovirus of claim 1, in combination with a pharmaceutically acceptable vehicle.

Please add the following new Claims:

--20. Baculovirus according to claim 2 wherein the heterologous nucleic acid sequence is an antisense sequence of gene.

21. Baculovirus according to claim 5, wherein the neutrophin is selected from the group consisting of NGH, BDNF, NT3, NT4/5, and NT6; the member of the CNTF family is selected from the group consisting of CNFT, axokine, LIF, IL6, cardiotrophin, and GDNF; the member of the IGF family is selected from the group consisting of IGF-1 and IFGF-2; and the member of the FGF family is selected from the group consisting of FGF1, FGF2, FGF3, FGF4, FGF5, FGF6, FGF7, FGF8, FGF9, and TGF-β.

22. The population of claim 17, wherein the cells of the nervous system are selected from the group consisting of: brain cells, spinal cord cells, neural cells, glial cells and ependymal cells.

23. A method for treating a disease of the nervous system in a patient, comprising administering an effective amount of a recombinant baculovirus of claim 1 to the patient.

24. The method of claim 23, wherein the administration is performed stereotaxically.

25. The method of claim 24, wherein the disease of the nervous system is a neurodegenerative disease, a lysosomal disease, or a combination thereof.

26. A method for producing a population of cells of the nervous system which is infected with the recombinant baculovirus of claim 1, comprising contacting the cells with the recombinant baculovirus.

27. The method of Claim 27, wherein the contacting step occurs *ex vivo*.--

REMARKS

In the instant preliminary amendment, Applicants have made merely formal amendments to the pending Claims so that their format complies with the standards of United States patent practice. In addition, Applicants have added new Claims 20-27 in order to more particularly point out and distinctly claim that which Applicants regard as the invention. Support for amended Claims 1-8, 10-11, and 17-19 as well as new Claims